



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/825,792	04/16/2004	John Geoffrey Chan	9215	9078

27752 7590 05/21/2009
THE PROCTER & GAMBLE COMPANY
Global Legal Department - IP
Sycamore Building - 4th Floor
299 East Sixth Street
CINCINNATI, OH 45202

EXAMINER

KARLS, SHAY LYNN

ART UNIT	PAPER NUMBER
----------	--------------

3723

MAIL DATE	DELIVERY MODE
-----------	---------------

05/21/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/825,792	Applicant(s) CHAN ET AL.	
	Examiner Shay L. Karls	Art Unit 3723	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 February 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 53-96 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 53-96 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 May 2007 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>2/25/09</u> . | 6) <input type="checkbox"/> Other: _____ |

Art Unit: 3723

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 81, 83 and 95 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 81 recites the limitation "the massaging plate" in line 1. There is insufficient antecedent basis for this limitation in the claim.

Claim 83 recites the limitation "the massaging plate" in line 1. There is insufficient antecedent basis for this limitation in the claim.

Claim 95 recites the limitation "the plurality of bristles tufts" in line 7-8. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 74, 75, 81, 85-87, 88, 93-96 are rejected under 35 U.S.C. 102(e) as being anticipated by Davies (PGPub 20030033680).

Art Unit: 3723

Davies teaches a toothbrush comprising a body with a handle (3), a head (2) and a neck between (4). The head has a rear face, a front face and a side wall between the front and rear face. The rear face has an opening therein (9) with a perimeter (figure 14). There is a massaging surface (6) having a perimeter that is disposed in the opening such that a perimeter of the massaging surface is in contact with the perimeter of the opening (figure 14). There are a plurality of cleaning elements (5) extending from the front face. There is a drive mechanism for vibrating the massaging surface (paragraph 0006 states that the toothbrush is an oscillating electric toothbrush and paragraph 0022 states there is a motor and a power source).

With regards to claim 75, the head further comprises a bristle carrier on the front face of the head with a plurality of bristles being disposed in the bristle carrier (the head is considered to be the bristle carrier).

With regards to claim 81, the massaging surface has at least one raised protrusion (figure 14, element 6 is the raised protrusion).

With regards to claim 85, the massaging surface is elongate (figure 14).

With regards to claim 86, the massaging surface comprises a plurality of projections which are formed from an elastomeric material (figure 8 shows a plurality of projections and paragraph 0013 teaches elastomeric).

With regards to claim 87, the projections in figure 9 are generally conical nubs.

With regards to claim 88, the front face further comprises a plurality of elastomeric elements (figure 13, element 6c).

With regards to claim 93, the perimeter of the openings surrounds the perimeter of the elastomeric element (figure 14).

Art Unit: 3723

With regards to claim 94, the elastomeric element is disposed within the opening such that an interface between the perimeter of the elastomeric element and rear face is smooth (figure 14).

With regards to claim 95, the toothbrush comprises a body having a handle (3), a head (2) and neck (4) there between. The head has a front and rear face and a side wall between the front and rear face. There is a plurality of cleaning elements extending from the front face (5) and a massaging surface disposed on the head (6). There is a drive mechanism for imparting motion to at least a portion of the cleaning elements and to the massaging surface (paragraph 0006 states that the toothbrush is an oscillating electric toothbrush).

With regards to claim 96, the toothbrush comprises a body having a handle (3) a head (2) and a neck (4) there between. The head has a front face and rear face wherein the rear face has an opening therein (9). The opening has a perimeter and the rear face comprises a first material (material of the head). There are a plurality of cleaning elements extending from the front face (5, 6). There is a massaging surface (bottom portion of element 6, part that is flush with rear face of head) formed on the rear face and being formed of a second material. A portion of the cleaning elements are comprised of a second material (elastomeric material) and wherein the first material and the second material are different.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 3723

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 53, 55-60, 64, 72 and 73 are rejected under 35 U.S.C. 103(a) as being unpatentable over Himmel (USPN 1125532) in view of Volpenhein (WO 98/18364).

Himmel teaches a toothbrush with a handle (1) and a head (2) connected by a neck. The head has a top face and a bottom face opposite the top face. The top face has a plurality of cleaning elements (3) and the bottom face has an opening having a perimeter (4). There is an elastomeric element (6) forming a portion of the rear face and having a perimeter (figure 3). The elastomeric element perimeter is in contact with the perimeter of the opening. There are a plurality of projections (10) extending from the elastomeric element orientated in rows.

With regards to claim 55, the projections are generally in rows transverse to a longitudinal axis of the brush (figure 2).

With regards to claim 56, the projections are generally in rows parallel with a longitudinal axis of the brush (figure 3).

With regards to claim 57, the projections cover a substantial portion of the bottom face (figure 2 and 3).

With regards to claim 58, the entire plurality of projections are uniform in shape (figures 2 and 3).

Art Unit: 3723

With regards to claim 59, the projections are made from a rubber material which is an elastomeric material (lines 55-59).

With regards to claim 60, the projections are nubs (figures 2 and 3).

With regards to claim 64, a first portion of the plurality of cleaning elements includes tufts of bristles.

With regards to claim 72, the perimeter of the opening surrounds the perimeter of the elastomeric element (figure 3).

With regards to claim 73, the elastomeric element is disposed within the opening such that an interface between the perimeter of the elastomeric element and rear face is smooth (figure 3).

Himmel teaches all the essential elements of the claimed invention however fails to teach that the projections are orientated in staggered rows (claim 1). Volpenhein teaches a toothbrush head with staggering rows of projections (figure 2a). At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to stagger the rows of projections on Himmel's massaging surface as taught of Volpenhein because Applicant has not disclosed that staggering rows provides an advantage, is used for a particular purpose, or solves a stated problem. One of ordinary skill in the art, furthermore, would have expected Applicant's invention to perform equally well with either the projections taught by Himmel or the claimed staggering as taught by Volpenhein because both projections perform the same function of massaging a user's gums equally well. Therefore, it would have been obvious to one of ordinary skill in the art to modify Himmel with Volpenhein to obtain the invention as specified in claim 1.

Art Unit: 3723

Claims 54 and 61 are rejected under 35 U.S.C. 103(a) as being unpatentable over Himmel (USPN 1125532) in view of Volpenhein (WO 98/18364) and further in view of Wilhoit (USPN 2134934).

Himmel and Volpenhein teach all the essential elements of the claimed invention however fail to teach that the projections are conical nubs. Wilhoit teaches a toothbrush head comprising a massaging surface (figures 4). The massaging surface comprises a plurality of projections oriented in rows that are generally conical nubs (22). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the projections of Himmel for conical nubs as taught by Wilhoit since the conical shape will allow the massaging surface to massage the gums as well as clean the spaces between the teeth (page 1, col. 2, lines 36-42).

Claims 62 and 63 are rejected under 35 U.S.C. 103(a) as being unpatentable over Himmel (USPN 1125532) in view of Volpenhein (WO 98/18364) and further in view of Maser (USPN 4827551).

Himmel and Volpenhein teach all the essential elements of the claimed invention however fail to teach that the handle comprises a motor (claim 62) and that the motor is configured to vibrate the elastomeric element (claim 63). Maser teaches a toothbrush with a brush head having a massaging surface (14) and cleaning elements (15) (figure 4). The toothbrush is electric and comprises a motor (2). The motor is configured to move the brush head. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the toothbrush of Himmel and Volpenhein so that it is motorized as taught by

Art Unit: 3723

Maser since a motorized massager and cleaning elements provides maximum stimulation of the gums and cleaning of the teeth (col. 1, lines 43-46).

Claims 65-66 are rejected under 35 U.S.C. 103(a) as being unpatentable over Himmel (USPN 1125532) in view of Volpenhein (WO 98/18364) and further in view of Jones (USPN 2117174).

Himmel and Volpenhein teaches all the essential elements of the claimed invention however fails to teach a second portion of the plurality of cleaning elements include elastomeric cleaning elements (claim 65) and that the second portion of the plurality of cleaning elements is disposed adjacent longitudinal sides of the head (claim 66). Jones teaches a cleaning head with a first portion having bristles (12') and a second portion having cleaning elements disposed adjacent longitudinal sides of the head (13). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the front face of Himmel so that it comprises elastomeric elements disposed along the sides of the head as taught by Jones so that the gums get massaged at the same time the teeth are cleaned. Further the massaging means serves as a shield for protecting the gums against the abrasion action of the bristles and for protecting the bristles of the brushing element against damage when in use (page 1, col. 1, lines 12-18).

Claim 67 is rejected under 35 U.S.C. 103(a) as being unpatentable over Himmel (USPN 1125532) in view of Volpenhein (WO 98/18364) and further in view of Jones (USPN 2117174).

Himmel, Volpenhein and Jones discloses the claimed invention except for styrene-ethylene-butadiene-styrene used as the material for the second portion of the plurality of cleaning

Art Unit: 3723

elements and the elastomeric elements. It would have been obvious to one having ordinary skill in the art at the time the invention was made to use styrene-ethylene-butadiene-styrene for the cleaning elements and elastomeric element, since it has been held within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious engineering choice. *In re Leshin*, 125 USPQ 416.

Claims 68 and 70 are rejected under 35 U.S.C. 103(a) as being unpatentable over Himmel (USPN 1125532) in view of Volpenhein (WO 98/18364) and further in view of Pfleger (USPN D287072).

Himmel and Volpenhein teaches all the essential elements of the claimed invention however fails to teach to that the cleaning elements form a concave profile wherein a first portion of the plurality of cleaning elements adjacent to longitudinal sides of the head are taller than a second portion of the plurality of cleaning elements which are inboard of the first portion of the plurality of cleaning elements (claim 68) and that the second portion of bristles are perpendicular to the top face (claim 70). Pfleger teaches a toothbrush with a plurality of bristles wherein the bristles form a concave profile. The bristles that are adjacent to the longitudinal sides of the head are taller than the bristles located in the middle of the head (figure 3). The bristles in the middle of the head are perpendicular to the top face of the brush head. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the bristles of Himmel and Volpenhein so that the bristles form a concave profile as taught by Pfleger so that when brushing, the top of the user's teeth can be cleaned by the shorter bristles and the sides of the user's teeth can be cleaned by the taller bristles, thus allowing the entire tooth to be cleaned at one time.

Art Unit: 3723

Claim 69 is rejected under 35 U.S.C. 103(a) as being unpatentable over Himmel (USPN 1125532) in view of Volpenhein (WO 98/18364) and further in view of Carter (USPN 1452108).

Himmel and Volpenhein teaches all the essential elements of the claimed invention however fails to teach a first portion of the plurality of cleaning elements angled toward longitudinal sides of the head with respect to the top face. Carter teaches a brush head with a plurality of bristles that are angled toward longitudinal sides of the head with respect to the top face (figure 1, 2 and 4). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the cleaning elements of Himmel and Volpenhein so that a portion of the bristles are angled toward the longitudinal sides of the head as taught by Carter so that the soft parts of the oral cavity adjacent to the teeth gets massaged while brushing teeth (page 1, line 14-25).

Claim 71 is rejected under 35 U.S.C. 103(a) as being unpatentable over Himmel (USPN 1125532) in view of Volpenhein (WO 98/18364) and further in view of Hohlbein (USPN 6442787).

Himmel and Volpenhein teaches all the essential elements of the claimed invention however fails to teach that a first portion of the plurality of cleaning elements are angled toward the handle. Hohlbein teaches a toothbrush with a cleaning head wherein a portion of the bristles are angled towards the handle. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify a portion of the bristles of Himmel and Volpenhein so that they are angled towards the handle as taught by Hohlbein to allow for access to hard-to-

Art Unit: 3723

reach areas such as the lingual surfaces of the front teeth and behind the rear molars, placing more bristles in contact with the outer surface of the front teeth (col. 1, lines 30-35).

Claims 76-80, 82 and 84 are rejected under 35 U.S.C. 103(a) as being unpatentable over Davies (PGPub 20030033680) in view of Schutz (USPN 6829801).

Davies teaches all the essential elements of the claimed invention however fails to teach the exact details of the drive mechanism. Davies does teach that the massaging surface has a smooth outer surface (figure 14) (claim 80). Schutz teaches a toothbrush with a drive mechanism comprising a motor (not shown) and a shaft (4) connected to the motor (claim 76). The shaft is disposed in the neck (figure 7) (claim 77 and 82). A portion of the drive mechanism is disposed within the head (figure 7, element 5) (claim 78) and the head of the brush covers the portion of the drive mechanism disposed in the head (claim 79). A portion of the drive mechanism comprises a linking component in the head and the link component extends toward the rear face (13, 14) (claim 84). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the toothbrush of Davies so that it comprises the drive mechanism as taught by Schutz since they are equivalent structures known in the art. Both references teach an electric toothbrush with a rotating head and therefore, both drive structures are equivalent means for rotating a brush head. Thus the substitution for one known element for another would have yielded predictable results to one of ordinary skill in the art at the time of the invention.

Claim 83 is rejected under 35 U.S.C. 103(a) as being unpatentable over Davies (PGPub 20030033680).

Art Unit: 3723

Davies teaches all the essential elements of the claimed invention including that the massaging element is an elastomeric material (paragraph 0013). Davies however fails to teach that the toothbrush head is formed from a polymer selected from the listing in claim 83. It would have been obvious to one having ordinary skill in the art at the time the invention was made to use one of the polymers listed in claim 83 for the material of the head since it has been held within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious engineering choice. *In re Leshin*, 125 USPQ 416.

Claim 89 is rejected under 35 U.S.C. 103(a) as being unpatentable over Davies (PGPub 20030033680) and further in view of Pfleger (USPN D287072).

Davies teaches all the essential elements of the claimed invention however fails to teach to that the cleaning elements form a concave profile wherein a first portion of the plurality of cleaning elements adjacent to longitudinal sides of the head are taller than a second portion of the plurality of cleaning elements which are inboard of the first portion of the plurality of cleaning elements. Pfleger teaches a toothbrush with a plurality of bristles wherein the bristles form a concave profile. The bristles that are adjacent to the longitudinal sides of the head are taller than the bristles located in the middle of the head (figure 3). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the bristles of Davies so that the bristles form a concave profile as taught by Pfleger so that when brushing, the top of the user's teeth can be cleaned by the shorter bristles and the sides of the user's teeth can be cleaned by the taller bristles, thus allowing the entire tooth to be cleaned at one time.

Claims 90 and 91 are rejected under 35 U.S.C. 103(a) as being unpatentable over Davies (PGPub 20030033680) in view of Carter (USPN 1452108).

Davies teaches all the essential elements of the claimed invention however fails to teach a first portion of the plurality of cleaning elements angled toward longitudinal sides of the head with respect to the top face (claim 90) and a second portion of bristles located generally perpendicular to the top face. Carter teaches a brush head with a plurality of bristles (6) that are angled toward longitudinal sides of the head with respect to the top face (figure 1, 2 and 4) and bristles that are perpendicular to the top face (5'). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the cleaning elements of Himmel and Volpenhein so that a portion of the bristles are angled toward the longitudinal sides of the head as taught by Carter so that the soft parts of the oral cavity adjacent to the teeth gets massaged while brushing teeth (page 1, line 14-25).

Claim 92 is rejected under 35 U.S.C. 103(a) as being unpatentable over Davies (PGPub 20030033680) in view of Hohlbein (USPN 6442787).

Davies teaches all the essential elements of the claimed invention however fails to teach that a first portion of the plurality of cleaning elements are angled toward the handle. Hohlbein teaches a toothbrush with a cleaning head wherein a portion of the bristles are angled towards the handle. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify a portion of the bristles of Davies so that they are angled towards the handle as taught by Hohlbein to allow for access to hard-to-reach areas such as the lingual surfaces of the front teeth and behind the rear molars, placing more bristles in contact with the outer surface of the front teeth (col. 1, lines 30-35).

Response to Arguments

Applicant's arguments with respect to claims 1-52 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shay L. Karls whose telephone number is 571-272-1268. The examiner can normally be reached on 7:00-4:30 M-W.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Hail can be reached on 571-272-4485. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3723

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Shay L Karls/
Primary Examiner, Art Unit 3723